

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/07787

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B23K33/00 B23K21/02 B23K20/14

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 034 (M-1204), 28 January 1992 (1992-01-28) -& JP 03 243286 A (CHIYODA CORP), 30 October 1991 (1991-10-30) abstract	1-3,7,14
Y A	---	6,8-13 4
X	GB 793 402 A (GEN ELECTRIC CO LTD) 16 April 1958 (1958-04-16)	1-5
Y	page 3, line 49-67; figure 7	6,9-13
X	US 4 669 650 A (MOE PER H) 2 June 1987 (1987-06-02) cited in the application	1-3,5
Y	column 3, line 54-29 column 3, line 30-32; figures 2,3 column 3, line 44-64 ---	9-13
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

14 October 2003

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20/10/2003

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C.(Continuation) DOCUMENTS CONSIDERED RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 04, 31 May 1995 (1995-05-31) -& JP 07 024577 A (KUBOTA CORP), 27 January 1995 (1995-01-27) abstract ---	8
X	US 4 736 084 A (MOE PER H) 5 April 1988 (1988-04-05) cited in the application the whole document ---	1-3,6
A	US 4 728 760 A (JENNERJOHN DENNIS A ET AL) 1 March 1988 (1988-03-01) column 5, line 27-39 ---	9-13
A	PATENT ABSTRACTS OF JAPAN vol. 010, no. 207 (M-500), 19 July 1986 (1986-07-19) -& JP 61 049789 A (NIPPON KOKAN KK), 11 March 1986 (1986-03-11) abstract -----	8

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/07787

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 03243286	A	30-10-1991	JP 2015771 C 19-02-1996 JP 7047231 B 24-05-1995
GB 793402	A	16-04-1958	NONE
US 4669650	A	02-06-1987	NO 833729 A 15-10-1984 AT 34689 T 15-06-1988 AU 567774 B2 03-12-1987 AU 3505184 A 07-05-1985 BR 8407111 A 27-08-1985 CA 1237002 A1 24-05-1988 DE 3471601 D1 07-07-1988 DK 257685 A ,B, 07-06-1985 EP 0159341 A1 30-10-1985 FI 852318 A ,B, 11-06-1985 IT 1234948 B 02-06-1992 JP 61500214 T 06-02-1986 WO 8501684 A1 25-04-1985 OA 8032 A 31-01-1987 RO 93865 A1 30-03-1988
JP 07024577	A	27-01-1995	NONE
US 4736084	A	05-04-1988	NO 850049 A 07-07-1986 AT 65038 T 15-07-1991 AU 578791 B2 03-11-1988 AU 5303886 A 29-07-1986 BR 8507157 A 14-07-1987 CA 1253924 A1 09-05-1989 DE 3583439 D1 14-08-1991 DK 421686 A 03-09-1986 EP 0208708 A1 21-01-1987 FI 863432 A 25-08-1986 JP 62501693 T 09-07-1987 WO 8604005 A1 17-07-1986 PL 257345 A1 07-10-1986
US 4728760	A	01-03-1988	AU 595334 B2 29-03-1990 AU 7428387 A 18-02-1988 CA 1266890 A1 20-03-1990 DE 3726587 A1 18-02-1988 DE 3744933 C2 24-03-1994 FR 2602625 A1 12-02-1988 GB 2194397 A ,B 02-03-1988 IT 1222473 B 05-09-1990 JP 63043783 A 24-02-1988
JP 61049789	A	11-03-1986	NONE